

CIVIL ENGINEERING AIDE III

PURPOSE AND NATURE OF WORK

Positions in this classification perform technical work on civil engineering projects, with responsibility for performing prescribed assignments involving a sequence of related operations. Work involves solving routine problems by selecting from specific choices defined in standard work policies or procedures. Some independent judgment is required to select and apply the most appropriate of available procedures. Work is performed under the direct supervision of a higher level technician or engineer, who will convey objectives, give technical advice, and review project/solution before it is accepted. Nature of the work is not supervisory; however, incumbents may be assisted by lower-level technicians.

ILLUSTRATIVE EXAMPLES OF WORK (Note: These examples are intended only to illustrate the various types of work performed by incumbents in this class. All of the duties performed by any one incumbent may not be listed, nor does any incumbent necessarily perform all of these duties.)

Serves as an instrument technician on a survey crew conducting topographical and property boundary surveys, duties requiring the operation of a total station survey instrument and electronic data collector, operating global positioning system (GPS) equipment, performing the duties of a rod technician as necessary, brush cutting, and locating property corners.

Serves as a mapping technician by identifying and compiling database information to create maps in response to requests, checking/monitoring map layers for accuracy and making corrections as needed, produce and update overlay maps, use resources such as survey maps and legal descriptions to verify property lines and to obtain information needed for mapping.

Serves as a traffic technician by using computer drafting equipment to construct line of sight drawings at traffic signal locations, analyzing data related to traffic flow to determine the most efficient methods to expedite traffic, designing improvements and changes to roadways, including pavement markings, to accommodate current and projected traffic and to increase usability and efficiency, and creating/verifying/maintaining technical documentation, such as traffic signal inventory, a traffic geographic information system, traffic sight obstructions, etc.

Serve as an inspector for materials/projects such as sewer manholes, lift stations, water transmission lines, sewer gravity line repairs, and similar utility materials/projects. Adds/deletes/updates information related to materials/projects on geographic information system (GIS) attribute table to account reconcile database with as-built drawings.

Creates work orders, reviews work requests to ensure information is correct, and creates/manages work flow. Receives calls about a wastewater collection problem, determines if the City is responsible for correcting, and creates a work order in City Works to inspect the line. After the inspection report comes back, incumbent reviews and creates a work order to repair the line, and closes out the order when the repair work is complete.

Reviews development plans to ensure the developer has a stormwater pollution prevention plan, inspects construction sites to insure contractor is following the stormwater prevention plan, inputs data from inspections into the Trakit system, sends out notices (as required) of violations and/or cease and desist orders.

Performs related work as required.

NECESSARY KNOWLEDGE, ABILITIES AND SKILLS

Knowledge of and ability to perform mathematical operations specifically related to engineering.
Knowledge of and ability to use computer systems and software appropriate to the nature and level of work.
Ability to communicate effectively by telephone, in person, or in writing to both individuals and small groups.
Ability to produce, read, analyze, and comprehend job-related specifications, plans, and/or drawings.
Ability to set up and use appropriate instruments to accurately take measurements.
Ability to learn job-related material through oral instruction, field experience, and/or specialized training.
Ability to independently solve problems associated with day-to-day activities.
Ability to work independently to accomplish tasks.

DESIRED EDUCATION AND EXPERIENCE

Twelve to eighteen months education and formal training beyond high school specific to the individual position and prior work experience in the civil engineering field incorporating the necessary knowledge, skills, and abilities required for the specific position.